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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/531,104

04/11/2005

Kimmo Laiho

006559.00008

2704

22907

7590

10/14/2009

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EXAMINER

DANG, KHANH

ART UNIT

PAPER NUMBER

2111

MAIL DATE

DELIVERY MODE

10/14/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/531,104

**Applicant(s)**

LAIHO, KIMMO

**Examiner**

Khanh Dang

**Art Unit**

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 4, 5, 7-10, 12-14 and 17-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 5, 7-10, 12-14 and 17-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/888)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/18/2009 has been entered.

### ***Claim Objections***

Claims 1, 19, 21, and 22 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Specifically, in claim 1, line 16, "the having" appears to be a typing error. Same error is noted regarding claims 19 and 21. In claim 22, limitation found in claim 22 is also found in claim 1.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2, 4, 5, 7-10, 14, and 17-22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oguma in view of Hsu et al. (Hsu, 6393588).

With regard to claim 1, Oguma discloses an apparatus comprising: a device operable as a host device, the device including: a bus; a first port, the first port having a first port voltage supply connection, a first port ground connection, a first port first data connection and a first port second data connection, the first port being connected directly to the bus; a second port, the second port having a second port voltage supply connection, a second port ground connection, a second port first data connection and a second port second data connection, the second port being connected directly to the bus; a host module, the host module being connected directly to the bus; and a comparator, the comparator being coupled to the bus and being operable for detecting the presence of a host externally connected to the bus; wherein the host module is responsive to the comparator for relinquishing host status in response to the detection

by the comparator of the presence of the host externally connected to the bus (at the outset, Applicants' Fig. 3 is reproduced below for comparison.

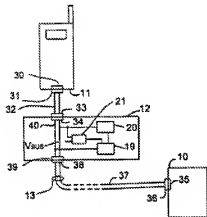
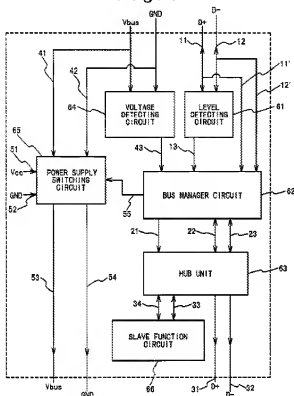


Figure 3

As shown in Applicants' Fig. 3, element 12 is the so-called "device operable as a host device," element 34 is the "first USB port," element 39 is the "second USB port," element 19 is the "host module," element 21 is a "comparator," and element 10 is the so-called "host externally connected to the bus" (note that all USB ports/connectors including Applicants' USB ports 34 and 39 include Vbus, GND, D+, and D-). The Vbus line of the USB bus is connected to "comparator" 21 while the rest of USB bus lines are connected to the "host module" 19. As shown in Fig. 3 of Oguma, which is reproduced below for ease of reference and comparison, Oguma discloses the so-called "device operable as a host" including a USB bus comprising Vbus, GND, D+, and D-. The device further comprises a first upstream USB port or "first port" having Vbus, GND, D+ and D-, connected directly to the USB bus; and a second USB downstream port or "second port" having Vbus, GND, D+ and D-, connected directly to the downstream of to

the same USB bus running from the first upstream USB port to the second downstream USB port. The device as shown in Fig. 3 of Oguma also shows the so-called "host module" or bus manager circuit 62 connected directly to the same USB bus; and the "comparator" or voltage circuit 64 detecting coupled to the same USB bus to detect the presence of a host externally connected to the USB bus. A voltage detecting circuit basically comprises a voltage comparator for comprising a supply voltage with a reference voltage (VREF) to detect a change in voltage or a difference between supply voltage and reference voltage. Further, as noted above, a USB bus comprises Vbus, GND, D+, and D-. It is also important to note that Applicants' Fig. 3 shows a Vbus line, and other lines are grouped together as line 40. See at least column 2, lines 39-57, column 4, line 65 to column 6, line 17).

Fig. 3



Further, as shown in Fig. 3 of Oguma above, the Vbus and GND of the upstream USB port are connected directly to the corresponding Vbus and GND of the downstream USB port. Element 65 in Fig. 3 of Oguma is simply a power supply switching circuit to supply direct power from different USB power sources. To receive power directly from the Vbus and GND of the upstream USB port, the Vbus and GND of the downstream USB port must be connected directly to the Vbus and GND of the upstream USB port. In addition, as shown in Fig. 3, the D+ and D- of the upstream USB port is connected the D+ and D- of the downstream USB port via the bus manager circuit 62 and USB Hub 63. However, in column 4, lines 18-22, Oguma also discloses that the "bus manager circuit 62 passes through the signal [D+ and D-] between host

personal computer 1 [USB host] and the [downstream] bus peripheral units [USB devices] (emphasis added)."

Thus, the difference between the claim subject matter and that of Oguma is the direct connection between the D+ and D- lines of the upstream USB port and the D+ and D- of the downstream USB port. As shown in Fig. 3 of Oguma, the D+ and D- lines of the upstream USB port and the D+ and D- of the downstream USB port are connected via a USB Hub 63.

Hsu, in Fig. 1, which is reproduced below for ease of reference and convenience, discloses a plug-and play USB Hub 16 comprising an upstream USB port connected to a host 12 and downstream ports connected to USB devices 14. The purpose of using the USB Hub is to provide additional USB connections/ports to downstream of the USB Hub. See column 1, lines 7-61.

Since the purpose of using a USB Hub is simply expanding the number of downstream USB ports that the USB Host can communicate with, as taught by Hsu, the use of the USB Hub is clearly optional.

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made not to use the USB Hub in Oguma, since the purpose of using a USB Hub is simply expanding the number of downstream USB ports that the USB Host can communicate with, as taught by Hsu, and thus, the use of the USB Hub is clearly optional. When the USB Hub 63 is not employed in Fig. 3 of Oguma, it is clear that the D+ and D- lines of the upstream USB port and the D+ and D- lines of the downstream USB port are directly connected; and as a result, the USB bus passes USB D+ and D-



directly from the upstream USB port or "first port" to the USB D+ and D- of the USB downstream port or "second port" responsive to relinquishment of host status.

With regard to claim 2, the host provides power supply for providing a supply voltage on a voltage supply line (Vbus GND) of the bus.

With regard to claim 4, it is clear from discussion above that the voltage detecting circuit detects a change in voltage on a voltage supply line of the bus, thereby detecting the presence of the other host. See at least column 2, lines 39-57, column 4, line 65 to column 6, line 17).

With regard to claim 5, it is clear from discussion above that the change is an increase.

With regard to claim 7, as best the Examiner can ascertain from the language of the claim, in Oguma, the portable device is arranged for causing at least some lines Vbus GND, D lines of the port to be forced tri-state such as suspended, active, and unavailable states, on detecting the presence of another host.

With regard to claim 8, according to USB standard, upon discover a connected host, a reset signal is sent to a USB slave.

With regard to claim 9, see discussion above and at least column 2, lines 39-57, column 4, line 65 to column 6, line 17.

With regard to claim 10, see discussion above regarding claims 1 and 6 and at least column 2, lines 39-57, column 4, line 65 to column 6, line 17.

With regard to claim 14, see discussion above regarding claim 1.

With regard to claim 17, see discussion above.

With regard to claim 18, it is clear that a USB slave can be connected to the portable device. See at least Fig. 1.

With regard to claims 19-22, see discussion above regarding claim 1.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oguma in view of Hsu, as applied to claim 1 above, and further in view of Chandley (7349689).

As discussed above, Oguma discloses the claimed invention except for the inclusion of the bus manager circuit responsible for providing a host status to the portable device, to a battery pack for providing power supply to the portable device 5.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to place the bus manager responsible for providing the host status to the portable device, to the battery pack of the portable device, since the battery pack is always an integral part of the portable device as evidenced by at least Chandley (7,349,689), and further moving the manager circuit to the battery pack only involves ordinary skill in the art.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oguma in view of Hsu, as applied to claim 1 above, and further in view of Chandley (7349689).

As discussed above, Oguma discloses the claimed invention including the use of a portable device such as a portable phone.

However, Oguma does not disclose that the portable device is capable of receiving video broadcast.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the portable device with capability of receiving video broadcast, since providing a portable device such as a portable or mobile phone with a capability of receiving video broadcast is old and well-known and only involves ordinary skill in the art as evidenced by at least Chandley (7,349,689). As a matter of fact, every smart phone is able to connect to the internet for downloading audio and video contents.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 19, and 21 have been considered but are moot in view of the new ground(s) of rejection.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Dang whose telephone number is 571-272-3626.

The examiner can normally be reached on Monday-Friday from 9:AM to 5:PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart, can be reached on 571-272-3632. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Khanh Dang/

Primary Examiner, Art Unit 2111